

ABSTRACT

A process for ultrafiltration using a spiral wound membrane filter is disclosed where the pressure in the space between the filter element and the pressure vessel is higher than or equal to the pressure inside the filter element. Using these conditions the static force created by the pressure provides a high friction between different sheets in the spiral wound filter element, which efficient prevents unwinding or telescoping of the filter element. Using this configuration it is possible to perform the ultrafiltration using a higher differential pressure across the filter element than would otherwise have been possible which leads to a higher efficiency and a low energy consumption. Further an anti telescoping device (ATD) and a spiral wound filter element, which are particular suited for the disclosed process, are described.